Statement of Basis
MeadWestvaco Coated Board, Inc.
211-0004

MeadWestvaco (Mead) has applied for a renewal of its Major Source Operating Permit 211-0004. This proposed Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

I. BACKGROUND:

Mead owns and operated the Mahrt Kraft pulp and paper mill located in Cottonton, Alabama. The Cottonton, AL site is located in Russell County, which is classified as a Class I county for particulates. The Mill utilizes the Kraft process to provide approximately 3,600 tons per day of both unbleached coated and uncoated paperboard utilizing approximately 85% virgin unbleached Kraft fiber and 15% unbleached recycled fiber. The facility is a major source with respect to Title V, NSPS, PSD, and the MACT/NESHAP standards. Mead is a major source for the following pollutants: PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, VOCs, Total HAP's, Acetaldehyde, Chloroform, Chlorine, Chloromethane, Formaldehyde, HCl, Hydrogen Sulfide, and Methanol.

II. PULP MILL:

The pulp mill converts wood chips from the woodyard into papermaking fiber via the Kraft pulping process. This area includes both batch and continuous pulping process. The pulp mill operation at the Mahrt Mill is comprised of several areas. White liquor for the pulping process is received from the recausticizing area and steam is received from the utility area. Spent cooking or black liquor from the pulping operations is removed via a washing process and sent to the recovery and recausticizing area for recycling. Each of the pulping systems is described in greater detail in the following sections:

There are six batch digesters in the batch pulping system. These digesters can process softwood or hardwood and operate sequentially. After cooking, the pulp is sent to the brown stock washers if the Chemiwasher system is unavailable. At the Chemiwasher, the spent black liquor is separated from the pulp and sent to the recovery area. Also, during the cooking process the digester relief gases are collected and either sent to the NCG collection system or to the turpentine collection system. The majority of the vapors and air emissions from this area are captured in the NCG collection system and then combusted.

In the continuous pulping system, softwood chips are conveyed to a Kamyr continuous digester. White liquor is continuously added, and the resulting pulp is sent to the continuous digester blow tank. The digester relief vapors are vented through a series of flash tanks prior to being sent to the turpentine collection system. The pulp is sent to the continuous brown stock washers where the spent black liquor is separated and sent to the recovery area. The majority of the air emissions from this are captured in the NCG collection system and then combusted.

A. Batch Digesters:

The pulp mill currently has 6 single-vessel batch digesters, which can process both softwood and hardwood pulp. All are operated sequentially. The six digesters were originally installed in 1990 and then later modified in 1995. These digesters have the capacity to produce 117,000 Machine Dried lb/hr of pulp.

1. Control Equipment:

Emissions from the 6 digesters are collected in the blow tanks and vented to the Non-Condensable Gas (NCG) Collection system. The digesters and blow tanks form low volume high concentration gases (LVHC) which are also required to be collected and treated per 40 CFR Part 63 Subpart S. For this source, all gases that that contain total reduced sulfur (TRS) are required to be incinerated in the No. 2 Lime Kiln or NCG Thermal Oxidizer as required by Subpart BB. The Mill has elected to treat the LVHC gases by incineration; thus, the LVHC exhaust gases are sent to the NCG Thermal Oxidizer or the No. 2 Lime Kiln for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

Batch Digesters 1-6 are subject to 40 CFR Part 63 Subpart S (MACT I) and are subject to 40 CFR Part 60 Subpart BB. To show compliance with Subpart S and Subpart BB the Mill has elected to incinerate all high volume low concentration (HVLC), LVHC gases, and all gases that contain TRS emissions. Furthermore, the Mill complies with Subpart S by requiring annual testing and monthly inspections of the HVLC and LVHC NCG system.

B. Continuous Digesters:

The pulp mill currently has a Kamyr Continuous Digester System, which can process both softwood and hardwood pulp. The Kamyr was originally installed in 1966. It has the capacity to produce 129,000 Machine Dried lb/hr of pulp.

1. Control Equipment:

Emissions from the Kamyr Digester is collected in the blow tanks and vented to the NCG Collection system. The digester's HVLC and LVHC are required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the HVLC and LVHC gases by incineration; thus, the LVHC exhaust gases are sent to the NCG Thermal Oxidizer or the No. 1 Lime Kiln for incineration, and the HVLC gases are sent to the No. 3 Wood Residue Boiler or the No. 1 Recovery Furnace for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

The Kamyr Continuous Digester system is subject to 40 CFR Part 63 Subpart S (MACT I). For this source, all gases that that contain total reduced sulfur are required to be incinerated in the No. 1 Lime Kiln, No. 2 Lime Kiln, No. 3 Wood Residue Boiler, or NCG Thermal Oxidizer per Rule 335-3-5-.04(5). All HVLC and LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC and LVHC NCG system.

C. Batch Brown Stock Washing and Screening System:

The function of the pulp washing systems in to wash out the residual cooling liquor from the pulp. The brown stock washing system is the area in the pulp mill in which wood chips are converted into unbleached pulp. This includes deknotting, pulp washing, screening, decker dewatering, and storage. The Mahrt Mill operates a Black Clawson Chemiwashing System. From the digester blow tank, the pulp enters the Chemiwashing System where a belt filter is used to remove the black liquor from the brown-stock. The Black Clawson Chemiwashing System was originally installed in 1990 and then later modified in 1995. The brown stock washers have the capacity to produce 117,000 Machine Dried lb/hr of pulp.

1. Control Equipment:

Emissions from Chemiwashing System are collected and vented to the NCG Collection system. The Chemiwashing System forms HVLC which are also required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the HVLC gases by incineration; thus, the HVLC exhaust gases are sent to the No. 3 Wood Residue Boiler or the No. 2 Recovery Furnace for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

The Chemiwashing System is subject to 40 CFR Part 63 Subpart S (MACT I) and subject to 40 CFR Part 60 Subpart BB. For this source all gases discharged that contain TRS in excess of 5 parts per million shall be incinerated, subjecting the gases to a minimum temperature of 1200 degrees Fahrenheit for at least 0.5 seconds per Subpart BB. All HVLC gases discharged from the Chemiwashing System are required to be incinerated in the No. 3 Wood Residue Boiler or the No. 2 Recovery Furnace as require by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC NCG system

D. Continuous Brown Stock Washing and Screening System:

The function of the pulp washing systems in to wash out the residual cooling liquor from the pulp. The brown stock washing system is the area in the pulp mill in which wood chips are converted into unbleached pulp. This includes deknotting, pulp washing, screening, decker dewatering, and storage. The Mahrt Mill operates an Eimco/Beloit-Rauma Continuous Washing and Screening System. From the digester blow tank, the pulp enters the continuous washing system where pressure and vacuum washers are used to remove the black liquor from the brown-stock in a counter-current washing mode. The continuous washing system was originally installed in 1966 and then later modified in 1996. These brown stock washers have the capacity to produce 129,000 Machine Dried lb/hr of pulp.

1. Control Equipment:

Emissions from continuous washing system are collected and vented to the Non-Condensable Gas (NCG) Collection system. The continuous washing system forms high volume low concentration (HVLC) which are also required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the HVLC gases by incineration; thus, the HVLC exhaust gases are sent to the No. 3 Wood Residue Boiler or the No. 1 Recovery Furnace for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

The continuous washing system is subject to 40 CFR Part 63 Subpart S (MACT I) and is subject to 40 CFR Part 60 Subpart BB. All HVLC gases discharged from the continuous washing system that contain total reduced sulfur are required to be incinerated in the No. 3 Wood Residue Boiler or the No. 1 Recovery Furnace as required by Subpart BB. Subpart S also requires annual testing and monthly inspections of the HVLC NCG system

III. CHEMICAL RECOVERY SYSTEMS:

The Mill has two parallel chemical recovery systems that operate under the same basic principal. Weak black liquor is collected from the chemiwasher/brown stock washers in the pulp mill and passed through a set of evaporators and concentrators to raise the solids content of the black liquor. The vapors from the feed stages of the evaporator/concentrator area are sent to the NCG collection system. The foul condensate is sent to the steam stripper to remove the VOC and HAP content. The soap collected off the weak liquor storage and evaporation system is sent to the tall oil system. The concentrated black liquor is then fired in a recovery furnace. The resulting inorganic smelt is then dissolved and sent to the recausticizing area for further processing.

The No. 1 Recovery System consists of the No. 1 Evaporator/Concentrator set, No. 1 Recovery Furnace and No. 1 Smelt Dissolving Tank. This system was converted to a low odor configuration in 1996 which resulted in the elimination of all direct contact between the boiler flue gas and the black liquor. This modification resulted in no net emission increases and did not trigger any new NSPS or NESHAP requirements.

A. No. 1 Multiple-Effect Evaporator System:

Black liquor contains the residual pulping chemicals and dissolved organic substances from wood chips. Under normal operating conditions, the brown stock washer filtrate will have a solids content of 15%. To raise the solids content, the liquor is routed to a six-effect Goslin – Birmingham Evaporator System that includes two high solids concentrators, which has the capacity to produce 125,000 lb/hr of black liquor solids. The condensate produced from black liquor evaporation is used as boiler feed water. The concentrated black liquor is sent to the recovery furnace. The Evaporator System was originally installed in 1966.

1. Control Equipment:

Emissions from the 6-effect evaporator are collected vented to the NCG Collection system. The exhaust gases from the evaporator form LVHC which are also required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the LVHC gases by incineration; thus, the LVHC exhaust gases are sent to the NCG Thermal Oxidizer or the No. 1 Lime Kiln for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 1 Evaporator System is subject to 40 CFR Part 63 Subpart S (MACT I). All LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires the annual testing and monthly inspections of the LVHC NCG system.

B. No. 1 Recovery Furnace:

The No. 1 Recovery Furnace burns the organic compounds contained in black liquor to generate steam and recovers the sodium and sulfur compounds used in the Kraft cooking process. The recovery furnace and its operation can be broken down into several sections: furnace area, convective heat transfer area, combustion air control, black liquor handling, smelt removal and dilution, and air emissions control. The hot gases from the combustion zone pass through the steam generation zone, which includes super-heater, boiler, and economizer. The No. 1 Recovery Furnace produces steam by firing up to 112,500 pounds of black liquor solids per hour. The No. 1 Recovery Furnace is permitted to fire natural gas, No. 2, 4, & 6 Fuel Oil, and back liquor solids. It was originally installed in 1966 and later modified in 1996; however not considered a modification per NSPS.

1. Control Equipment:

The No. 1 Recovery Furnace's exhaust gases are sent to a dry bottom electrostatic precipitator (ESP) for the control of particulate emissions.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 1 Recovery Furnace is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, total reduced sulfur, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds and sulfuric acid mists and 40 CFR Part 63 Subpart MM (MACT II).

The No. 1 Recovery Furnace has the following limits and monitoring requirements:

PM	$\leq$ 0.036 gr/dscf @ 8% O_2 and/or $\leq$ 52.2 lbs/hr
TRS	$\leq$ 5 ppmv @ 8% O_2 as a 12-hr rolling avg.
NO_x	$\leq$ 112 ppmv @ 8% O_2 and/or $\leq$ 136 lbs/hr
Opacity	$\leq$ 35 %
SO_2	$\leq$ 144 ppmv @ 8% O_2 and/or $\leq$ 253 lbs/hr.
CO	$\leq$ 300 ppmv @ 8% O_2 and/or $\leq$ 222 lbs/hr
VOC	$\leq$ 0.048 lbs/MMBtu and/or $\leq$ 37.2 lbs/hr (as carbon)
SAM	$\leq$ 12.2 lbs/hr
HAPS	PM as a surrogate < 0.036 gr/dscf @ 8 % O_2

- Yearly emissions tests will be required for particulate matter;
- For particulate matter and opacity periodic monitoring, if the average of any ten consecutive six minute opacity averages exceeds 20% the cause is to be investigated and appropriate corrective action is to be taken;
- A continuous TRS monitor (CEMs) and continuous opacity monitor (COMs) shall be installed, maintained, and operated;
- Records of all three hour block average black liquor firing rates for this unit shall be maintained for PM, SO2, NO_x, VOC, CO, and SAM periodic monitoring;
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- Mead is required to submit quarterly excess TRS and Opacity emission reports;
- Mead shall perform and submit an emission test for SO_2, NO_x, CO, VOC, and SAM once every five years.

C. No. 1 Smelt Dissolving Tank:

The No. 1 Smelt dissolving tank uses weak wash to dissolve the inorganic residue from the combustion of black liquor solids in the No. 1 Recovery Furnace. The dissolved smelt, which contains a mixture of sodium sulfide and sodium carbonated called "green liquor", is then sent to the Mill's causticizing area for further processing. A Badcock & Wilco Smelt Dissolving Tank was originally installed in 1966.

1. Control Equipment*:*

The vent stack of the dissolving tank is fitted with a wet scrubber system including a Ducon wetted fan. The wet scrubber is used to control the entrained particulate matter.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 1 Smelt Dissolving Tank is subject to:

- 40 CFR Part 63 Subpart MM (MACT II);

- the applicable requirements of Rule 335-3-4-.07 for particulate matter;
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity; and
- the requirements of ADEM Admin. Code 335-3-5-.04(7) total reduced sulfur from Kraft pulp mill smelt tanks.

The No. 1 Smelt Dissolving Tank has the following limits and monitoring requirements:

PM	$\leq$ 0.5 lbs/ADTP
TRS	$\leq$ 0.033 lb/ton BLS
Opacity	$\leq$ 20% with one six-minute period up to 40% in any one hour period
HAPS	PM as a surrogate $\leq$ 0.2 lbs/ton BLS

- Yearly particulate matter emissions tests are required to be performed and submitted.
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- For PM periodic monitoring, Mead shall monitor and maintain records of all the three-hour block average liquor firing rate and the three-hour block average liquid flow rate to the scrubber;
- Mead shall perform and submit a TRS emission test once every five years.
- For TRS periodic monitoring, Mead shall monitor and maintain records of all the three-hour block average liquor firing rate and the three-hour block average scrubber liquor pH.

The No. 2 Recovery System consists of the No. 2 Evaporator/Concentrator set, No. 2 Recovery Furnace and No. 2 Smelt Dissolving Tank. This system was installed in 1990; therefore, these units are subject to the NSPS and NESHAP Standards, respectively.

D. No. 2 Multiple-Effect Evaporator System:

Black liquor contains the residual pulping chemicals and dissolved organic substances from wood chips. Under normal operating conditions, the brown stock washer filtrate will have a solids content of 15%. To raise the solids content, the liquor is routed to a six-effect HPD Evaporator System that includes two high solids concentrators, which has the capacity to produce 187,500 lb/hr of black liquor solids. The condensate produced from black liquor evaporation is used as boiler feed water. The concentrated black liquor is sent to the recovery furnace. The Evaporator System was originally installed in 1990.

1. Control Equipment:

Emissions from the 6-effect evaporator are collected vented to the NCG Collection system. The exhaust gases from the evaporator form LVHC and HVLC which are also required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the LVHC and HVLC gases by incineration; thus, the LVHC exhaust gases are sent to the NCG Thermal Oxidizer or the No. 2 Lime Kiln for incineration, and the HVLC gases are incinerated in the No. 3 Wood Residue Boiler or No. 2 Recovery Furnace.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Evaporator System is subject to 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart S (MACT I). For this source, all gases that contain total reduced sulfur are required to be incinerated in the No. 2 Lime Kiln or NCG Thermal Oxidizer as required by Subpart BB. All HVLC and LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC and LVHC NCG system.

E. No. 2 Recovery Furnace:

The No. 2 Recovery Furnace is a non-direct contact evaporator design. The furnace burns the organic compounds contained in black liquor to generate steam and recovers the sodium and sulfur compounds used in the Kraft cooking process. The remaining inorganic compounds fall to the bottom of the recovery furnace as molten smelt, which is then falls out to the smelt dissolving tank. The recovery furnace and its operation can be broken down into several sections: furnace area, convective heat transfer area, combustion air control, black liquor handling, smelt removal and dilution, and air emissions control. The hot gases from the combustion zone pass through the steam generation zone, which

includes super-heater, boiler, and economizer. The No. 2 Recovery Furnace produces steam by firing up to 187,500 pounds of black liquor solids per hour. The No. 2 Recovery Furnace is permitted to fire natural gas, No. 2 Fuel Oil, and back liquor solids. It was originally installed in 1990.

1. Control Equipment:

The No. 2 Recovery Furnace's exhaust gases are sent to a dry bottom electrostatic precipitator (ESP) for the control of particulate emissions.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Recovery Furnace is subject to:

- The requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, total reduced sulfur, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds and sulfuric acid mists;
- 40 CFR Part 63 Subpart MM (MACT II);
- 40 CFR Part 60 Subpart BB for TRS; and
- 40 CFR Part 60 Subpart Db for NO_x.

The No. 2 Recovery Furnace has the following limits and monitoring requirements:

PM	$\leq$ 0.044 gr/dscf @ 8% O_2 and/or $\leq$ 106.6 lbs/hr
TRS	$\leq$ 5 ppmv @ 8% O_2 as a 12-hr block avg.
NO_x	$\leq$ 112 ppmv @ 8% O_2. Pursuant to Section 60.44b(c), Code of Federal Regulations, the fossil fuel annual capacity factor < 10%, where the annual capacity factor is defined as the ratio between the actual heat input to the boiler from fossil fuel during a calendar year and the potential heat input to the boiler had it been operated 8,760 hours at the maximum designed heat input.
Opacity	$\leq$ 35 %
SO_2	$\leq$ 140 ppmv @ 8% O_2 and/or $\leq$ 394.0 lbs/hr. When Fuel Oil is fired SO_2 emissions $\leq$ 0.3 lbs/MMBtu
CO	$\leq$ 879 ppmv @ 8% O_2
VOC	$\leq$ 0.03 lbs/MMBtu
SAM	$\leq$ 20.0 lbs/hr
HAPS	PM as a surrogate < 0.028 gr/dscf @ 8 % O_2

- Yearly emissions tests will be required and submitted for particulate matter;
- For particulate matter and opacity periodic monitoring, if the average of any ten consecutive six minute opacity averages exceeds 20% the cause is to be investigated and appropriate corrective action is to be taken;
- A continuous TRS monitor (CEMs) and continuous opacity monitor (COMs) shall be installed, maintained, and operated;
- The quantity and heat input of fossil fuels shall be monitored and maintained on file for at least five years;
- Records of all three hour block average black liquor firing rates for this unit shall be maintained for PM, SO_2, NO_x, VOC, CO, and SAM periodic monitoring;
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- Mead is required to submit quarterly excess TRS and Opacity emission reports;
- Mead shall perform and submit an emission test for SO_2, NO_x, CO, VOC, and SAM once every five years.

F. No. 2 Smelt Dissolving Tank:

The No. 2 Smelt dissolving tank uses weak wash to dissolve the inorganic residue from the combustion of black liquor solids in the No. 2 Recovery Furnace. The dissolved smelt which contains a mixture of sodium sulfide and sodium carbonated called "green liquor", which is then sent to the Mill's causticizing area for further processing. A Tampella Smelt Dissolving Tank was originally installed in 1990.

1. Control Equipment*:*

The vent stack of the dissolving tank is fitted with a wet spray scrubber system. The wet scrubber is used control the entrained particulate matter.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Smelt Dissolving Tank is subject to:

- 40 CFR Part 63 Subpart MM (MACT II);
- 40 CFR Part 60 Subpart BB;
- the applicable requirements of Rule 335-3-14-.04 for sulfur dioxide; and
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity.

The No. 2 Smelt Dissolving Tank has the following limits and monitoring requirements:

PM	$\leq$ 0.2 lbs/TBLS and/or $\leq$ 18.8 lbs/hr
TRS	$\leq$ 0.033 lb/TBLS
SO_2	$\leq$ 12 ppmv and/or $\leq$ 6.3 lbs/hr
Opacity	$\leq$ 20% with one six-minute period up to 40% in any one hour period
HAPS	PM as a surrogate $\leq$ 0.2 lbs/TBLS

- Yearly particulate matter emissions tests are required to be performed and submitted;
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- For PM, TRS, and SO_2 periodic monitoring, Mead shall monitor and maintain records of all the three-hour block average liquor firing rate;
- For PM periodic monitoring, Mead shall monitor and maintain records of the three-hour block average liquid flow rate to the scrubber;
- Mead shall perform and submit a SO_2 emission test once every five years; and
- For TRS periodic monitoring, Mead shall monitor and maintain records of the three-hour block average scrubber liquor pH.

IV. RECAUSTICIZING SYSTEM:

The Recausticizing area and No. 1 and No. 2 Lime Kilns are integral to the recovery of pulping chemicals and the conversion of the pulping chemicals back to active ingredients. This is part of the recovery loop which also includes the multiple-effect evaporator system and recovery furnace. Recausticizing is the conversion of sodium carbonate in green liquor to sodium hydroxide in white liquor by a reaction with lime. The green liquor from the smelt dissolving tank is combined with reburned lime from the lime kiln. Then it is transferred to an agitated tank known as a slaker. Both slakers are vented to a wet scrubber. The slurry is transferred from the last causticizer to a clarifier to settle out the lime mud, and the white liquor is pumped to a white liquor storage tank for use in the digester.

A. No. 1 Lime Kiln:

The clarified lime mud slurry is pumped from the mud storage tank and is then vacuumed filtered to remove the sodium compounds and water. The high solids lime mud is then fed to a rotary kiln where it is dried and burned to drive off the CO_2 and recover the lime to be re-used in the recausticizing process. The lime kiln is currently permitted to fire natural gas, Crude Tall Oil, and No. 2, 4, and 6 fuel oils containing less than 3.0 percent sulfur. The Allis Chalmers lime kiln was originally installed in 1966, and has the capacity to produce 20,833 lb/hr CaO.

1. Control Equipment:

The lime kiln is equipped with a variable throat venturi scrubber to control particulate and PM HAP emissions. The lime kiln itself is also considered a control device and is used to control the LVHC and HVLC gases at the mill.

a. Emission Limits and Proposed Periodic Monitoring:

The lime kiln is subject to:

- 40 CFR Part 63 Subpart MM (MACT II);
- the applicable requirements of Rule 335-3-4-.07 for particulate matter;
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity; and
- the requirements of ADEM Admin. Code 335-3-5-.04(6) total reduced sulfur from Kraft pulp mill lime kilns

The lime kiln has the following limits:

PM	$\leq$ 1.0 lbs/ADTP
TRS	$\leq$ 20 ppmvd at 10% O_2
Opacity	$\leq$ 20% with one six-minute period up to 40% in any one hour period
HAPS	PM as a surrogate $\leq$ 0.192 gr/dscf at 10% O_2

- Yearly particulate matter emissions tests are required to be performed and submitted.
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- For PM periodic monitoring, Mead shall monitor and maintain records of the three-hour block averages of the scrubber pressure drop across the scrubber inlet and the scrubber stack or liquid flow rate;
- For PM periodic monitoring, Mead shall monitor and maintain records of the three-hour block averages of the lime mud flow rates;
- Mead shall maintain records of the CaO production rates;
- A continuous TRS monitor (CEMs) shall be installed, maintained, and operated; and
- Mead is required to submit quarterly excess TRS emission reports.

B. No. 1 Slaker:

The No. 1 Slaker was originally installed in 1966 and later modified in 1998. It has the capacity to process 25,700 lb/hr CaO.

1. Control Equipment:

The No. 1 Slaker is equipped with a wet scrubber to control particulate emissions.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 1 Slaker is subject to:

- the applicable requirements of Rule 335-3-14-.04 for particulate matter; and
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity.

The No. 1 Slaker has the following limit:

PM	$\leq$ 1.0 lbs/hr
Opacity	$\leq$ 20% with one six-minute period up to 40% in any one hour period

- no monitoring or reporting requirements.

C. No. 2 Lime Kiln:

The No. 2 Lime Kiln is currently permitted to fire natural gas, and No. 2, 4, and 6 fuel oils containing less than 3.0 percent sulfur. The F.L Smith lime kiln was originally installed in 1990, and has the capacity to produce 25,000 lb/hr CaO.

1. Control Equipment:

The No. 2 Lime Kiln is equipped with an electrostatic precipitator to control particulate and PM HAP emissions. The lime kiln itself is also considered a control device and is used to control the LVHC and HVLC gases at the mill.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Lime Kiln is subject to:

- The requirements of a ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, total reduced sulfur, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds and sulfuric acid mists;
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity;
- 40 CFR Part 63 Subpart MM (MACT II) for PM & HAPs;
- Due to the MACTII standard being more stringent than the BACT PM limit (when oil is fired), the Department has determined that PM shall meet the MACTII limit of 0.064 to show compliance; and
- 40 CFR Part 60 Subpart BB for TRS and PM.

The No. 2 Lime Kiln has the following limit:

PM (gas)	$\leq$ 0.035 grains/SDCF @ 10% O_2 and/or $\leq$ 7.9 lb/hr
PM (oil)	$\leq$ 0.064 grains/SDCF @ 10% O_2
SO_2	$\leq$ 44.0 ppmv @ 10% O_2. Fuel oil firing of $\leq$ 3.0% sulfur content
NO_x	$\leq$ 336 ppmv @ 10 % O_2
TRS	$\leq$ 8 ppmv @ 10 % O_2 (as 12-hr block avg.)
Opacity	$\leq$20 % with one six-minute period up to 40% in any one hour period
HAPS	PM as a surrogate $\leq$ 0.035 gr/dscf) @ 10 % O_2
VOC	$\leq$ 78 ppmv @ 10 % O_2
CO	$\leq$ 52 ppmv @ 10 % O_2
SAM	$\leq$ 12.9 ppmv @ 10% O_2 and/or $\leq$ 4.3 lbs/hr.

- Yearly emissions tests will be required for particulate matter;
- For particulate matter and opacity periodic monitoring, if the average of any ten consecutive six minute opacity averages exceeds 20% the cause is to be investigated and appropriate corrective action is to be taken;
- A continuous TRS monitor (CEMs) and continuous opacity monitor (COMs) shall be installed, maintained, and operated;
- For sulfur dioxide periodic monitoring the facility shall obtain and maintain receipts from the fuel oil supplier that certify the sulfur content in the fuel at least once a year;
- Records of all three hour block average lime mud flow rate for this unit shall be maintained for at least five years for PM, SO_2, NO_x, VOC, CO, and SAM periodic monitoring;
- Since this source is subject to MACT II, it is required to submit quarterly excess emission reports and must comply with the monitoring and reporting requirements of Subpart MM;
- Mead is required to submit quarterly excess TRS and Opacity emission reports;
- Mead shall perform and submit an emission test for SO_2, NO_x, CO, VOC, and SAM once every five years.

D. No. 2 Slaker:

The No. 1 Slaker was originally installed in 1966 and later modified in 1998. It has the capacity to process 25,700 lb/hr CaO.

1. Control Equipment:

The No. 2 Slaker is equipped with a wet scrubber to control particulate emissions.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Slaker is subject to:

- the applicable requirements of Rule 335-3-14-.04 for particulate matter; and
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity.

The No. 2 Slaker has the following limit:

PM	$\leq$ 1.0 lbs/hr
Opacity	$\leq$ 20% with one six-minute period up to 40% in any one hour period

- no monitoring or reporting requirements.

V. CONDENSATE STRIPPER SYSTEM:

Pulping equipment at the mill that generates foul condensate streams include evaporator hotwells, underflow from the turpentine decanter, blow heat secondary condenser, blow heat accumulator, and miscellaneous condenser or wells. The condensate stripper system collects the foul condensate and passes the stream through a steam-based stripper column which is capable of removing TRS compounds and VOCs including organic HAPs. Stripped off-gases from the steam stripper are collected and vented to the NCG thermal oxidation system.

A. Condensate Stripper:

The Goslin stripper system has a production capacity of producing 225,000 pounds per hour of condensates.

1. Control Equipment:

Emissions from the stripper system are collected vented to the NCG Collection system. The exhaust gases from the stripper form LVHC which are also required to be collected and treated per 40 CFR Part 63 Subpart S. The Mill has elected to treat the LVHC gases by incineration; thus, the LVHC exhaust gases are sent to the NCG Thermal Oxidizer or the No. 1 Lime Kiln for incineration.

a. Emission Limits and Proposed Periodic Monitoring:

The condensate stripper system is subject to 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart S (MACT I). For this source, all gases that contain total reduced sulfur are required to be incinerated in the No. 1 Lime Kiln or NCG Thermal Oxidizer as required by Subpart BB. All LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC and LVHC NCG system.

VI. NCG THERMAL OXIDATION SYSTEM:

NCGs and LVHC gases are collected from the digester and evaporator areas. The collected gases are combusted in the NCG thermal oxidizer. In the event the oxidizer is out of service, the collected gases are directed to the Lime Kilns.

A. NCG Thermal Oxidation System:

The NCG Thermal Oxidation System incinerates NCG and LVHC gases. The NCG Thermal Oxidation System has a capacity of 250,500 lb/hr of machine dry pulp. It is permitted to also fire natural gas and is permitted to be operated 8760 hours per year.

1. Control Equipment:

The NCG Thermal Oxidation System is equipped with a micro mist wet scrubber including trays, venture tubes, and inherent mist eliminator to control particulate, TRS, VOC, SO_2, and SAM emissions. The thermal oxidizer itself is considered a control device and is used to control the LVHC gases at the mill.

a. Emission Limits and Proposed Periodic Monitoring:

The NCG Thermal Oxidation System is subject to:

- The requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, sulfur dioxide, nitrogen oxides, and sulfuric acid mists;
- 40 CFR Part 63 Subpart S (MACT I) for HAPs; and
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity.

The NCG Thermal Oxidation System has the following limits and monitoring requirements:

PM	$\leq$ 3.2 lbs/hr
NO_x	$\leq$ 34.25 lbs/hr
Opacity	$\leq$ 20 % with one six-minute period up to 40% in any one hour period
SO_2	$\leq$ 8.9 lbs/hr
SAM	$\leq$ 20.0 lbs/hr
HAPS	Operate at a minimum temp. of 1600 degrees Fahrenheit and a minimum residence time of 0.75 seconds

- Yearly emissions tests will be performed and submitted for particulate matter;
- Records of the three hour block average wet scrubber liquid recirculation pH for this unit shall be maintained for SO_2;
- Records of all three hour block average wet scrubber liquid recirculation flow rate for this unit shall be maintained for PM, SO_2, and SAM periodic monitoring;
- Records of all three hour block average exhaust gas duct temperatures for this unit shall be maintained for HAP periodic monitoring
- Mead shall perform and submit an emission test for SO_2, NO_x, and SAM once every five years.

VII. PAPER MACHINE AREA:

Once pulp from the pulp mill has been refined through the addition of various compounds to reach the desired physical properties, it is pumped to a centrifugal cleaner system. This system cleans and removes other contaminates, the good stock is transferred to a collection tank where it is transferred through a pressure screen to the headbox of the paper machine. The headbox controls the manner in which the stock passes onto the paper machine's wire to form a uniform paper mat. The water removed from the stock flowing down the wire drains into a collecting silo for re-use. After the paper web is removed from the wire it passes through two press sections, then to the drying section of the paper machine which is heated by steam from the plant. After the dryer section, the sheet passes through the calendars which compresses the paper to obtain the specified thickness and surface smoothness and is then wound on a reel drum.

There are two fourdrinier type paper machines that are capable of producing a total of approximately 3,600 tons per day of unbleached coated and uncoated finished paperboard product.

A. No. 1 Paper Machine:

The No. 1 Paper Machine was originally installed in 1966 and later modified in 1996. This unit has the capacity to produce 150,000 machine dried tons of pulp per year.

1. Control Equipment:

The paper machine has no add on control equipment installed to achieve compliance with emission limitations. It is required to use a best available control technology "work practice standard" for VOC. A venturi scrubber associated with the No. 2 Paper Machine and Coater is utilized for material recovery and upset conditions.

a. Emission Limits and Proposed Periodic Monitoring:

VOC compound emissions shall be controlled by using only mill supply water, non-direct contact condensates, clean condensates, well water or white water as water sources for the paper machine. Since the paper machines have no specific limits, no periodic monitoring is necessary.

B. No. 2 Paper Machine:

The No. 2 Paper Machine was originally installed in 1966 and later modified in 1996. This unit has the capacity to produce 150,000 machine dried tons of pulp per year.

1. Control Equipment:

The paper machine has no add on control equipment installed to achieve compliance with emission limitations. It is required to use a best available control technology "work practice standard" for VOC. A venturi scrubber associated with the No. 2 Paper Machine and Coater is utilized for material recovery and upset conditions.

a. Emission Limits and Proposed Periodic Monitoring:

VOC compound emissions shall be controlled by using only mill supply water, non-direct contact condensates, clean condensates, well water or white water as water sources for the paper machine. Since the paper machines have no specific limits, no periodic monitoring is necessary.

VIII. UTILITIES:

Mead's utility area consists of a combination of boilers, steam turbines, and combustion turbines to generate stream and electricity to support the mill operations.

A. No. 1 Wood Residue Boiler:

The No. 1 Wood Residue Boiler is a 337 MMBtu/hr boiler that generates steam and is permitted to burn natural gas, biomass (sludge from the wastewater treatment system), Crude Tall Oil, No. 2 fuel oil, and wood waste (wood residue from woodyard). The Badcock & Wilcox boiler was originally installed in 1966 and later modified in 1973.

1. Control Equipment:

Flue gas from this boiler is controlled by a multiclone in series with a fixed throat venturi with cyclonic separator wet scrubber. The scrubber helps to control PM emissions from the firing of different fuels and combinations of those fuels.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 1 Wood Residue Boiler is subject to:

- The requirements of ADEM Admin. Code 335-3-14-.04, a National Ambient Air Quality Standard (NAAQS) limit for sulfur dioxide due to a 1998 modeling exceedance in which the Mill chose to limit the sulfur content of the fuel oil they burn;
- the requirements of ADEM Admin. Code 335-3-4-.08 and Code 335-3-4-.03 for particulate matter
- 40 CFR Part 61 Subpart E for mercury because it incinerates wastewater treatment plant sludge;
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity; and
- This boiler is not subject to NSPS because it was constructed/modified prior to 1976.

The No. 1 Wood Residue Boiler has the following limits:

PM	Shall not exceed: a. 0.17 gr/stdcf, adjusted to 50% excess air for combination gas and wood waste boilers b. 0.2 gr/stdcf, adjusted to 50% excess air for combination oil and wood waste boilers 0.20 gr/stdcf, adjusted to 50% excess air for boilers using wood waste oil.
SO_2	The fuel oil sulfur content $\leq$ 0.5%
Opacity	$\leq$ 20 % with one 6-minute period up to 40 % in any one hour period.

Hg	≤ 3200 gr/24-hr period

- Yearly emissions tests will be required and submitted for particulate matter;
- Records of the three hour block average steaming rate and wet scrubber liquid flow rate for this unit shall be maintained for PM;
- Obtain receipts from the fuel oil supplier that certify sulfur content in fuel for the calendar year and maintain vendor oil specification on file for at least five years;
- Mercury re-testing is only required if changes are made in the operation that would potentially increase emissions above the level determined by the most recent sludge test; and
- Records of the quantity of oven dry tons of de-watered wastewater treatment solids burned per day must be made and remain on file for at least five years.

B. No. 2 Wood Residue Boiler:

The No. 2 Wood Residue Boiler is a 550 MMBtu/hr boiler that generates steam and is permitted to burn natural gas, biomass (sludge from the wastewater treatment system), and wood waste (wood residue from woodyard). The Combustion Engineering boiler was originally installed in 1981 and later modified in 1988.

1. Control Equipment:

Flue gas quality from this boiler is controlled by a multiclone in series with a Wet Electrostatic Precipitator (WESP). The WESP helps to control PM and SAM emissions from the firing of different fuels and combos of those fuels.

a. Emission Limits and Proposed Periodic Monitoring:

The No. 2 Wood Residue Boiler is subject to:

- The requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) a Best Available Control Technology (BACT) limit for particulate matter, carbon monoxide, volatile organic compounds, sulfuric acid mists, sulfur dioxide, and nitrogen oxide;
- 40 CFR Part 60 Subpart Db for particulate matter, sulfur dioxide, nitrogen oxide, and opacity, and
- 40 CFR Part 61 Subpart E for mercury because it incinerates wastewater treatment plant sludge.

The No. 2 Wood Residue Boiler has the following limits:

PM	≤ 0.1 lbs/MMBtu and/or ≤ 55.0 lbs/hr
SO_2	≤ 0.0096 lbs/MMBtu heat input and/or ≤ 5.3 lbs/hr when wood waste, natural gas, or wood waste and natural gas are fired.
NO_x	≤ 0.3 lbs/MMBtu heat input. Pursuant to Section 60.44b(c), Code of Federal Regulations, the fossil fuel annual capacity factor < 10%, where the annual capacity factor is defined as the ratio between the actual heat input to the boiler from fossil fuel during a calendar year and the potential heat input to the boiler had it been operated 8,760 hours at the maximum designed heat input.
Mercury	≤ 3200 gr/24-hr period
Opacity	≤20% with one six-minute period per hour up to ≤ 27%
VOC	≤ 0.03 lbs/MMBtu heat input
CO	≤ 0.4 lbs/MMBtu heat input
SAM	≤ 0.0064 lbs/MMBtu heat input and/or ≤ 3.5 lbs/hr when wood waste, natural gas or wood waste and natural gas if fired.

- Yearly emissions tests will be required for particulate matter;
- Records of all three hour block average wash flow rate to the WESP for any three hour block average total power for this unit shall be recorded and maintained for at least five years for PM;
- Records of all three hour block average steam production rate for this unit shall be recorded and maintained for at least five years for PM, SO_2, NO_x, VOC, CO, and SAM periodic monitoring;
- Natural gas heat inputs in MMBtu per calendar year shall be monitored and the annual capacity factor calculated for each calendar year maintained for at least five years;
- Mercury re-testing is only required if changes are made in the operation that would potentially increase emissions above the level determined by the most recent sludge test; and
- Mead shall perform and submit an emission test for SO_2, NO_x, CO, VOC, and SAM once every five years.

C. No. 3 Wood Residue Boiler:

The No. 3 Power boiler is a 915 MMBtu/hr boiler that generates steam and is permitted to burn natural gas, coal, No. 2 fuel oil, 40 CFR Part 61 Subpart E for mercury because it incinerates wastewater treatment plant sludge. Also, this boiler acts as an incineration point for the LVHC and HVLC non-condensable gases. The Badcock & Wilcox boiler was originally installed in 1990.

1. Control Equipment:

Flue gas from this boiler is controlled by a multiclone in series with a fixed throat venturi with cyclonic separator wet scrubber. The control devices help control PM and SAM emissions from the firing of different fuels and combos of those fuels.

a. Emission Limits and Proposed Periodic Monitoring:

- The requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, carbon monoxide, volatile organic compounds, sulfuric acid mists, sulfur dioxide, and nitrogen oxide;
- 40 CFR Part 60 Subpart Db for particulate matter, sulfur dioxide, nitrogen oxide, and opacity; and
- 40 CFR Part 61 Subpart E for mercury because it incinerates wastewater treatment plant sludge.

The No. 3 Wood Residue Boiler has the following limits:

PM	$\leq$ 0.1 lbs/MMBtu and/or $\leq$ 91.5 lbs/hr
SO_2	$\leq$ 0.0096 lbs/MMBtu heat input and/or $\leq$ 8.8 lbs/hr.
NO_x	$\leq$ 0.3 lbs/MMBtu heat input. Pursuant to Section 60.44b(c), Code of Federal Regulations, the fossil fuel annual capacity factor < 10%, where the annual capacity factor is defined as the ratio between the actual heat input to the boiler from fossil fuel during a calendar year and the potential heat input to the boiler had it been operated 8,760 hours at the maximum designed heat input.
Mercury	$\leq$ 3200 gr/24-hr period
Opacity	$\leq$20% with one six-minute period per hour up to $\leq$ 27%
VOC	$\leq$ 0.03 lbs/MMBtu heat input
CO	$\leq$ 0.4 lbs/MMBtu heat input
SAM	$\leq$ 0.012 lbs/MMBtu heat input and/or $\leq$ 10.8 lbs/hr.

- Yearly emissions tests will be performed for particulate matter;

- Records of all three hour block average scrubber liquid flow rates or pressure drop for this unit shall be recorded and maintained for at least five years for PM;
- Records of all three hour block average steam production rate for this unit shall be recorded and maintained for at least five years for PM, SO_2, NO_x, VOC, CO, and SAM periodic monitoring;
- Natural gas heat inputs in MMBtu per calendar year shall be monitored and the annual capacity factor calculated for each calendar year maintained for at least five years;
- Mercury re-testing is only required if changes are made in the operation that would potentially increase emissions above the level determined by the most recent sludge test; and
- Mead shall perform and submit an emission test for SO_2, NO_x, CO, VOC, and SAM once every five years, and if any fuel oil is fired during the five-year permit period a SAM emission test shall be performed while firing fuel oil and wood waste.

D. No. 1 Power Boiler

The No. 1 Power boiler is a 428 MMBtu/hr boiler that generates steam and is permitted to burn natural gas and No. 2 fuel oil. The boiler was originally installed in 1965.

1. Control Equipment:

There is no emission control equipment installed on this emission source.

a. Emission Limits and Proposed Periodic Monitoring:

- The requirements of ADEM Admin. Code 335-3-14-.04 (9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limit for sulfur dioxide;
- the requirements of ADEM Admin. Code 335-3-4-.03 for particulate matter
- the requirements of ADEM Admin. Code 335-3-8-.25 for CAIR NO_x Ozone Season Trading Program; and
- the requirements of ADEM Admin. Code 335-3-4-. 01 for opacity.

The No. 1 Power Boiler has the following limits:

PM	< 0.12 lbs/MMBtu heat input
SO_2	The fuel oil sulfur content $\leq$ 0.5%
Opacity	$\leq$ 20 % with one 6-minute period up to 40 % in any one hour period.
NO_x	Must hold appropriate budgeted NO_x allowances

- Records of daily one minute visible emissions reading shall be made and maintained on file for five years;
- The NO_x budget program recordkeeping and reporting shall be in accordance with Rule 335-3-8-.32;
- Obtain receipts from the fuel oil supplier that certify sulfur content in fuel for the calendar year and maintain vendor oil specification on file for at least five years; and
- Records of when fuel oil is fired in the unit shall be made. It shall be documented if the fuel oil firing is for burner/cleanout and if the firing period is less than 30 minutes. These records shall be kept available for at least five years.

E. Combined Cycle Combustion Turbine:

The Combined Cycle Combustion Turbine is a 568 MMBtu/hr gas turbine and duct burner that generates steam and is permitted to burn natural gas. The gas turbine was originally installed in 1998.

1. Control Equipment:

There is no emission control equipment installed on this emission source.

a. Emission Limits and Proposed Periodic Monitoring:

- The requirements of ADEM Admin. Code 335-3-14-.04(9) Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for particulate matter, carbon monoxide, and nitrogen oxide;

- 40 CFR Part 60 Subpart Db for particulate matter and nitrogen oxide;
- 40 CFR Part 61 Subpart GG for particulate matter and nitrogen oxide;
- Rule 335-3-4-.01 limit for visible emissions; and
- Rule 335-8-.25 for the CAIR NO_x Ozone Season Trading Program.

The Combined Cycle Combustion Turbine has the following limits:

PM	From the stationary gas turbine: $\leq$ 0.0068 lbs/MMBtu and/or $\leq$ 2.5 lbs/hr. From the duct burner: $\leq$ 0.01 lbs/MMBtu and/or $\leq$ 2.1 lbs/hr
NO_x	From the stationary gas turbine: $\leq$ 25 ppmv @ 15% O_2 on a dry basis and/or $\leq$ 33.0 lbs/hr.
NO_x	From the duct burner: $\leq$ 0.1 lbs/MMBtu and/or $\leq$ 20.0 lbs/hr.
NO_x	Must hold appropriate budgeted NO_x allowances
Opacity	$\leq$20% with one six-minute period per hour up to $\leq$ 40% in any one hour period
CO	From the stationary gas turbine: $\leq$ 28 ppmv @ 15% O_2 on a dry basis and/or $\leq$ 22.0 lbs/hr.
CO	From the duct burner: $\leq$ 0.08 lbs/MMBtu and/or $\leq$ 16.1 lbs/hr.

- A continuous NO_x monitor (CEMs) shall be installed, maintained, and operated;
- Mead is required to submit quarterly excess NO_x emission reports;
- Records of all three hour block average stationary turbine and duct burner natural gas firing rates for this unit shall be recorded and maintained for at least five years;
- Natural gas heat inputs in MMBtu per calendar year shall be monitored and the annual capacity factor calculated for each calendar year maintained for at least five years;
- The NO_x budget program recordkeeping and reporting shall be in accordance with Rule 335-3-8-.32; and
- Mead shall perform and submit an emission test for PM and CO once every five years for the stationary gas turbine and duct burner.

IX. CAM:

CAM applies to pollutant specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation. The CAM rule requires facilities to monitor compliance indicators for emission units to provide reasonable assurance for compliance with regulatory emission limitations. This facility has units that are subject to CAM, as detailed below.

These are the exemptions that apply to one or more emission units operated by the mill:

- The requirements of Part 64 shall not apply to emission limitations or standards proposed by EPA after November 15, 1990, pursuant to section 111 or 112 of the Clean Air Act (40 CFR 64.2(b)(1)(i));
- The requirements of Part 64 shall not apply to Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by the Administrator under the Act that allows for trading emissions within a source or between sources;
- The requirements of Part 64 shall not apply to emission limitations or standards for backup utility power units that: are owned by a municipality, are exempt from all monitoring requirements in Part 75, are operated solely for providing electricity during peak periods or emergency situations, and for which average actual emission for the previous 3 years are less than 50 percent of the major source cutoff and are expected to remain so; and
- The requirements of Part 64 shall not apply to emission limitations or standards for which a Part 70 or 71 permit specifies a continuous compliance determination method (40 CFR 64.2(b)(1)(vi)).

For the units that are subject to CAM, below are the listed ways the facility is meeting CAM.

The following units are subject to CAM; however, the facility is satisfying CAM by following the monitoring requirements of 40 CFR Part 63 – Subpart S:

- Continuous Washing and Screening System (TRS & VOC): Monitor using 40 CFR Part 63 – Subpart S;
- Batch Digester (TRS): Monitor using 40 CFR Part 63 – Subpart S;
- Batch Washing and Screening System (TRS): Monitor using 40 CFR Part 63 – Subpart S;
- No. 2 Evaporator System (TRS): Monitoring using 40 CFR Part 63 – Subpart S; and
- Condensate Stripper System (TRS): Monitoring using 40 CFR Part 63 – Subpart S;

As a result, these emission units must comply with the monitoring requirements prescribed in the applicable standard rather than the requirements of 40 CFR Part 64.

The Mill also monitors one or more of the following: liquor firing rate, steam production, scrubber liquid recirculation rate, lime mud flow rate, Δ P, scrubber total liquid flow, and opacity continuously on a three-hour block average for the following sources as a parametric indicator for proper control of particulate matter, H_2SO_4 and TRS emissions:

- No. 1 Recovery Furnace (PM) (liquor firing rate and opacity);
- No. 2 Lime Kiln (PM) (lime mud flow rate and opacity);
- No. 1 Wood Residue Boiler (PM) (scrubber liquid flow rate and steam production);
- No. 2 Wood Residue Boiler (PM) (scrubber liquid flow rate and steam production);
- No. 3 Wood Residue Boiler (PM) (scrubber liquid flow rate, Δ P, and steam production);
- NCG Oxidation System (PM and H_2SO_4) (scrubber liquid recirculation rate);
- No. 2 Recovery Furnace (PM) (liquor firing rate and opacity); and
- No. 2 Smelt Tank (PM and TRS) (liquor firing rate and scrubber total liquid flow).

The above listed parametric indicator monitoring systems satisfy the compliance assurance monitoring requirements for the above listed emissions from these emission units.

Attached is a table that contains a list of all of the significant and insignificant emission units identified by the Mill along with the results of the CAM applicability analysis.

_____

John Abner
Industrial Chemicals Section
Chemical Branch
Air Division
Alabama Dept. of Environmental Management

Date